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ALCOHOLISM AND RELATED FORENSIC MEDICAL PROBLEMS

IN CZECHOSLOVAKIA

by A. Reisich

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FOREWORD

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ALCOHOLISM AND RELATED FORENSIC MEDICAL PROBLEMS
IN CZECHOSLOVAKIA

Following is the translation of an article by A. Reisich, in Praktický Lekar (The Practical Doctor), Vol XLI, No 5, Prague, 6 March 1961, pages 216-220.

Not only the forensic doctor but also the general practitioner is obligated to find and present evidence of a criminal act to the investigating organs with the help of his medical, criminalistic and scientific discoveries. He is very often confronted with cases dealing either directly with a punishable criminal act or a suspicion of such an act, and thus he is confronted with the problem of alcoholism responsible for such an offense. On the whole it is a matter of determining the results of a criminal act done under the influence of alcohol or in making a blood test and determining the amount of alcohol in the blood stream in connection with such an act, and even cases where the consumption of an excessive amount leads to death by intoxication, aspiration, cooling of the organism, and, furthermore, suicides, paternity arguments, transfer of venereal diseases, injuries and general alcohol consumption in relation to sudden death.

Regardless of the fact that a large amount of literature has been collected on the effects of alcohol (Jellinek lists approximately a hundred thousand works), Vamosi found that in our circumstances there is a lack of statistical data examining the effects of alcohol consumption on certain phenomena in the life of our society.

The sudden growth of the means of transportation in the whole world and the greatly increased consumption of alcoholic beverages brought along with it a greater number of vehicle accidents, some of which end with serious injury or death of the driver, passengers, workers in transportation, and pedestrians. Today, alcoholism is considered as one of the main factors of accidents, and from year to year, mainly in the capitalistic states, alcohol consumption is gradually increasing. In this whole world there does not seem to be one land which lacks an alcoholic beverage. The best proof of its popularity is the fact that after the US instituted prohibition in

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1920 and alcohol could be purchased only on doctor's prescription, 45,000 doctors issued almost 14 million prescriptions for alcohol in one year.

The general statistics of the western countries indicate that alcohol causes approximately 10% of all car accidents. This number seems generally quite low; the unofficial estimates are much higher and fluctuate around 40%.

Since the level of alcohol in the blood stream after the consumption of a certain amount of alcohol in a certain period of time is relatively the same as in other tissues, therefore even in the CNS /central nervous system/, it is possible to consider the level of alcohol in the blood both as the indicator of the absorbed amount of alcohol and as the agent that affects the psychomotor functions. Alcohol never has an irritating effects on CNS; what seems to be a disturbance is the result of the elimination of the dulling influence of the core of the brain hemispheres. The effect of alcohol is always paralyzing and never stimulating. It is known that alcohol disturbs selfcontrol and removes the protective influence of self-criticism, lawfulness and social mores (Vondracek), that tend to hold the actions of the individual within the limits of social morality. In transportation it has the effect of prolonging the reaction period, which often causes the driver to err in a difficult situation, although it also damages long range vision and the balance apparatus (cyclists and motorcyclists).

The responsibility of evaluating transportation accidents and the role of alcohol in them can be further complicated by the fact that one needs to pay a great deal of attention to the place of the accident and determine whether the injury was really caused by the vehicle. It is usually very easy to determine a car accident. Significant bruises on the skin and the surrounding tissue, numerous abrasions, dismembering of the trunk, separation of the head and extremities in injuries by vehicles on tracks, compound bone fractures of the frame, damage to, straining and tearing of the internal organs, all of this definitely points to an automobile accident. Nevertheless it is not always so easy to determine whether the injury is the result of a automobile accident and what part is due to the effects of alcohol, especially when there is just the isolated head injury that resembles an injury caused by human hand or hard, heavy and dull objects. Such injuries occur if the injured, after a heavy blow on the head by some external part of a vehicle, is thrown off to the side or falls out on hard ground from a slowly moving vehicle. In such cases it is necessary to examine carefully both the clothing and the body, especially any damage done to soft tissues on the head, in an effort to find any remnants of foreign materials or tissues, such as, for example, coal, stones, grease, lacquer, etc, that could point to the origin of this injury. If it is found that the injury is the result of an automobile accident, one must make sure whether the bruises visible on the corpse could have been inflicted before death. Clearly visible absence of blood in the tissues and in the internal organs and hemorrhaging around the injuries, embolism of the fat in the lungs, or the aspiration of the stomach

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contents or of the blood, all point to the fact that the injuries have been caused while the person was alive. In general one can say that automobile injuries show more injuries of a secondary nature (from falling, rolling, dragging). Injuries caused by vehicles on tracks have more primary injuries that are also more serious and extensive.

The mechanism of the accident, an analysis of the causes is also important; why was there an accident, inspection of the site of the accident, examination of the vehicle and an autopsy of the deceased. Similarly, the role of alcohol must be taken into consideration. The cause of the accident can be more or less accurately determined by the traffic officer from the evidence on the road and on the vehicle, and the doctor can do so from the biological evidence on the road, on the body and the vehicle after they are identified, what part of the vehicle caused which injury, for example, if the collision with the pedestrian occurred from the front, from the back, from the side, whether the driver must have been aware of it, whether the victim was standing, kneeling, lying down, whether he jumped in front of the moving vehicle or whether he was run over by several vehicles. This statement, together with the determination of the amount of alcohol in the blood stream of each wounded and deceased is very important for the solution of the accident that has just taken place.

It is necessary to examine closely and evaluate the condition of the clothing, its damage, the condition of the shoe soles of the victim by which one can often tell the direction of the impact on a sandy road; with motorcyclists, the effort to brake in any manner. By the clothes and the shoes it is then possible to see signs of a possible manipulation of the deceased, the direction of the flow of blood, possible movement of the injured by the driver into another position more favorable to him (by particles on the clothing not found in the location of the body, or by the condition of the heels after they have been dragged), and the remains of vomit, either mixed with blood or only covered by blood. The explanation of the actions of persons under the influence of alcohol can cause certain problems to the doctor-analyst. At all times, however, it is necessary to look at the situation from all points of view, i.e. dialectically.

One night a group of half-intoxicated citizens was returning from a party and after running the automobile into a tree, one of the persons was seriously injured. He was having a drink with them merely by chance and as a favor they were taking him home in their open truck. In order to conceal their action, they drove the injured man into the nearest town where they took him out of the car in the town square and sat him, unconscious, under a linden tree and left him. In the morning, the man was found there dead. He was identified, where he was last seen, what he was doing at the time, and the autopsy confirmed the suspicion of an automobile accident. The autopsy determined the mechanism of the injury, the amount of alcohol in the bloodstream, the hour of death and the time interval when the victim, whose death was caused by the internal bleeding of a torn spleen, was moved. The combination of the links into one whole complex helped to apprehend the culprits who left the injured man,

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who up to a certain time could have been saved by surgery.

The statistics of the Western European countries on the ratio between alcohol and crime indicate that 80% of all crimes and up to 40% of all mental illness are in one way or another connected with alcoholism. In the USA, Seliger found that crimes are more often planned in places where alcohol is consumed, that the criminal prefers to look for his accomplices in bars, and under the influence of alcohol he becomes bolder since alcohol has the tendency to weaken self-criticism, and, finally, that the spoils are again often divided under the influence of alcohol.

A person whose actions have been influenced by alcohol, often commits various offenses and criminal acts. It is generally known that under alcoholic intoxication there is a rise of self-consciousness, with some people intolerance, belligerency, and tendency to fighting, which often lead to both minor and serious injuries or even to death. The doctor must indicate the force of the attack, its direction, instrument, if it was not found, and also the strength of the injured person or the deceased.

We were doing an autopsy on the body of a young gypsy. During an argument and a fight while intoxicated, the artery under his left collar bone was cut by a quick stroke of a knife and he quickly bled to death. The autopsy which determined the depth and the direction of the wound, the instrument and the significant amount of alcohol in the blood of the attacker and the victim as well as the overall examination of the situation excluded self-defense and decisively proved an attack.

Usually the person responsible for such an act, after sobering up, tries to argue that perhaps he was so drunk that he did not know what he was doing or that the injury was caused in self-defense. The self-defense argument in a knifing, of course, has no grounds if the direction of the blow is from the back or from above, or if it is inflicted with considerable force and penetrates deeply, deeper than the length of the instrument. Important is the investigation of the place of the incident and the position of the attacker who can defend himself on the grounds that the victim ran into his instrument. If the attacker did not stand by the wall and if the blow was not inflicted from below upward and if it was not inflicted with a considerable force, then even this argument can easily be discarded, for the hand holding the instrument tries to avoid the running object involuntarily and the instrument will be turned upward so that the wound would be more or less superficial and in the direction of the force. The argument of running onto an instrument can be admitted only when the hand holding the weapon has nowhere to hide.

The concept of irresponsibility according to Paragraph 11 of the Penal Code can hardly be admitted into investigations of drunkenness in fights and in automobile accidents (outside of pathological intoxication), because the man in this condition is hardly capable of directing a motor vehicle in motion or of playing the role of an attacker in a fight. The degree of intoxication of the accused or both culprits always has to be determined so that the defensive abilities and the degree of strength of the attacker can be established. A medical examination as well as a blood test should be given as soon as possible after the incident in case

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there is need of surgery on the injured person before narcosis sets in.

During a pathological intoxication, which represents both a quantitative and a qualitative change in the reaction to alcohol, often even after a small amount of alcohol, an insanity, dulling of the senses, unmotivated explosions of anger and fear, without any evidence of drunkenness at the same time, seem to occur. Such a condition can arise suddenly, and after a short period of time it can change into sleep, after which amnesia usually occurs. The danger of pathological drunkenness rests in the fact that during the feeling of faintness, the ability to act is still well preserved so that the person thus affected by alcohol up to the state of irresponsibility can commit very serious and socially dangerous acts. Sometimes pathological drunkenness can combine with intolerance. The behavior of the attacker and the victim should always be left up to a detailed examination by a psychiatrist so that he can form an accurate picture of the behavior and the degree of the effect. Stereotype judgements based on per mill measure of alcohol in the bloodstream is nonsense because during pathological drunkenness values are extremely low.

A drunk man was beating his pregnant wife at a dance. When one of the persons there tried to stop him, he ran home to get his rifle and shot this person in the chest with a small caliber pistol from the distance of a few feet in such an unfortunate spot that the man bled to death in no time. This was not a case of pathological drunkenness. He recalled his deed and explained it by anger intensified by alcohol. Later, however, he denied his intentions and tried to label the action as accidental, as though the shot came after he threw the gun away. Such a claim, however, was not accepted on the grounds of a technical examination of the weapon, the angle of the shot and the direction of the bullet hole.

In cases that lack witnesses, it is necessary to eliminate accidental shooting in gun accidents, as well as the question whether the victim could inflict the fatal wound himself. It is absolutely necessary to leave the scene of the incident as well as the clothing of the victim in the original state up to the autopsy, because even they can show the direction of the flow of blood, burns, preserved particles in the material, etc.

Not only does alcoholism complicate and increase automobile accidents, but fatality in general. Such is the case in factories, in agriculture, and in domestic life. So far the problem of factory fatalities has had little attention devoted to it and has been worked out only in few cases. In Zurich, v. Orelli accumulated data on a great number of factory fatalities caused by the consumption of an alcoholic beverage, and he divided this number into two groups on the basis of the circumstances surrounding them. The first group contains cases where the victim had to make a grave error in order to cause an accident, the second group included those cases where the work area did contain a definite visible danger; small however, so that normal person could see it and overcome it. According to his findings, death most often came as a result of falls, often insignificant ones in a

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simple, easily controllable and determinate circumstance where the drunk man got himself into a position which hindered his breathing so that in that position he died as a result of aspiration of vomit or blood. The amount of alcohol in the brain tissue in these observations fluctuated between 1.8-2.5 per thousand.

The mechanism of factory (fall, blow) or agricultural (animal, machinery, drowning) injuries is sometimes rather unclear and incomprehensible. It often includes the presence of another element which always needs to be carefully eliminated -- an accident must be definitely proved caused by intoxication. Therefore, the cases of various injuries connected with drunken people (mainly in falls from a height, drowning, falls from steps) have to be carefully evaluated both on the basis of an autopsy and the place of the incident; it must exclude the possible intervention of another person (blow on the chin, evidence of a struggle, dragging, internal injuries caused by a fall, etc.).

In one of our cases, a drunken man fell down the stairs and broke his neck. At the scene of the accident he was examined, and it was determined by the position of the victim that the fall took place without any defensive reactions, which is typical of a drunk person, and that the injury was actually inflicted by the objects in the way of the fall on the scene of the incident and not by another party, even though neighborhood quarrels led us to suspect a criminal action. The length of the fall down to the landing was measured, and the autopsy showed signs of violence and how it was inflicted. The examination of the area under the chin did not show any bruises caused by a fist blow.

In another case, a very short-sighted machinist very much under the influence of alcohol fell in the boiler-room from the landing terrace down in front of the boiler. The cause of death was a broken skull and damaged brain with hemorrhaging into the brain matter and the hard cover. Besides this, the examination showed that on the evening in question he had several visitors with whom he drank 10% beer to the amount of two to four five-liter pickle jars through the night. Since he was very short-sighted, he never took off his glasses, which, however, upon inspecting the scene of the accident, were found on his desk in the boiler-room. He knew his work area well, since he had worked there for several years. Such inconsistencies gave rise to the suspicion of a criminal act. The examination of the course of the fall, the place of the fall (which was perpendicular under the ramp and the position of the body), a careful autopsy of the injury, as well as no evidence of other violence, dismissed the suspicion of a criminal act.

Another man, also strongly under the influence of alcohol, quickly suffocated to death when a piece of smoked meat 6X4X2 cm got stuck in his throat as he was eating in a public place. His companions did not even notice what was happening. There was an autopsy on the suspicion that he was poisoned. This incident also shows how important it is for the doctor performing the autopsy to take out all of the organs by himself, because the autopsy assistant, no matter how experienced, is not able to detect the cause (as in the above-mentioned incident) and will ruin it; then the autopsy is worthless.

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The role of alcohol in suicides is as important as in criminal acts. In order to overcome the inborn yearning for life, the suicide victim very often uses means that are capable of destroying this urge. In most cases, this instrument is an alcoholic beverage under whose effect the suicide becomes bolder. On the other hand, one should not forget that a man under the influence of alcohol is not capable of solving life's "impossible" problems in a rational manner. So, very often one finds an alcohol bottle by the body of the suicide or a high amount of alcohol in his bloodstream. Even though the problem of a suicide has been studied from various points of view, there is so far no agreement on the problem whether a man, absolutely healthy mentally, is capable of committing suicide, or if it is only a man mentally ill or somehow psychically affected by alcohol, if only for the short period of time just before the execution of the act. The motivation often remains unclear. The suicide often finds no explanation for itself; the task of the doctor is to exclude the intervention of another person, to bring the results of an autopsy to agree with the circumstances, and to pronounce a medical criminological opinion. The designation of an act as a murder, suicide, or an accident represents actually an accepted classification of the incident and belongs into the competence of the investigating organs which investigate the problem on the basis of an evaluation of all the evidence in their possession. It is required of the doctor that by an autopsy and other means he presents medical evidence for some of these possibilities and proves their objectivity in a given situation. The scene of the incident, the laboratory examination, the determination of the circumstances, and their agreement with the autopsy results are certainly the pieces of evidence needed for a legal decision as to whether it is a case of suicide, accident, or the intervention of another person.

Only with the close cooperation between the criminologist and a doctor was it possible to solve the case of a suicide of a young gambler-defrauder, complicated also in the last phase by alcoholism. This man, as a result of playing cards, defrauded more and more money from the funds of his firm. After one of his losses at cards and while intoxicated, he tried to hide his stealing by burning the firm's building, where he was in charge. He poured benzine on all of the supplies and the rooms around it and set fire to it. Excited and heavily intoxicated, he did not even notice that he found himself in a very precarious position, for the fire closed off his way of escape. After an unsuccessful attempt to escape the fire, he committed suicide on the spot by stabbing himself in the chest with a huge kitchen knife. In the beginning, the circumstances encouraged the suspicion of an act of thievery, for the cash box was open and the money was strewn around the floor. Only an autopsy determined the self-inflicted non-fatal wound. The wound merely penetrated the lung and led to hemorrhaging into the left cavity. However, the vital evidence was found in the areas of the burns, the blood from deep blood vessels contained carboxylhemoglobin, and signs of a defensive struggle were lacking entirely. The typical localization of the wound, the examination of the place of the incident,

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and the discovery of a fraud finally led to the proper conclusion.

Finally, alcohol as a poison can cause death all by itself. Therefore, it is necessary to mention a fatal alcohol poisoning, its discovery by autopsy, and the complicity of the poisoning.

B. Mueller lists the fatal dosage of alcohol to be 3 g/kg with children and 6-8 g/kg with adults. Rajskii lists it to be 7 g/kg and adds that this dose can obviously be higher. The amount of alcohol in the blood which will cause death is usually indicated on the average of 3.5 - 7 per thousand, although other fatal poisonings have been known to occur in 2.5 promiles.

The number of fatalities due to alcohol poisoning is relatively low, in this sense of the word, because the evidence of intoxication usually prevents further consumption of alcohol up to the fatal dose. Behind many of the possible alcohol poisonings, other causes are hiding in reality, such as heart failure, epilepsy, apoplexy, necrosis of the pancreas, inhalation of a mouthful of matter, pneumonia after getting a chill while lying on the ground, vomiting with aspiration, or death by a thorough chilling of the organism. A rapid death due to poisoning usually occurs on a bet, when the consumption of a greater quantity of alcohol immediately causes the victim to collapse into unconsciousness; death can occur within a few minutes or even hours by the paralysis of breath or the failure of the heart-beat when the lungs have been drowned. Without knowledge of the circumstances, it is usually thought to be caused by some other poison.

The results of an autopsy of alcoholic poisoning are not especially characteristic in themselves; the examination of all of the organs as well as a blood test for alcohol must be carefully taken, even in clear-cut cases. An external examination, on the whole, does not determine the cause of death. The surroundings of the deceased, however, give a lot of evidence and sometimes even suggest the circumstances under which death occurred. During an autopsy, the fresh corpse usually emits an aromatic odor similar to the smell of spoiled wine from all of the organs and body cavities. There is dark-flowing blood in the arteries, the brain is slightly swollen, and we find symptoms of suffocation from the compression of the respiratory center, inflation of the lungs in their position, a microscopic oblong softening of the layers, womb hemorrhaging with the microscopic necrosis in the pancreas, and, in most cases, the aspiration of the stomach contents. Death occurs when the person, already in a considerable state of drunkenness, is left by himself; during vomiting, he finds himself in an unfavorable body position and inhales the vomit. According to the consistency of the stomach contents, this can be quite massive. However, not a great deal is needed to cause suffocation, because even if the lumen of the wind-pipe is not stuffed up, there is still a stoppage of breath because the foreign matter causes a disturbance of the nerves which branch in the walls of the wind-pipe and the bronchial tube, thus causing its constriction. Misleading and erroneous is the opinion that there must be an odor of alcoholic beverages from the stomach during the death by an acute alcohol poisoning. This odor is overshadowed by the acidity of

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the stomach contents. At other times, on the other hand, the special odor of some liquor should not call for an acute poisoning diagnosis, because alcohol is quite often given to people who have suddenly become ill in an effort to refresh them.

The aspiration of the vomit always needs to be microscopically tested in the bowels; this is a very important factor for a criminologist, for it proves that aspiration occurred while the victim was 100% alive, and probably only because the intoxicated person was not given the proper attention and care. In the last-mentioned reason, it is necessary to call attention to the fact that the state of drunkenness is underestimated by some doctors and that the intoxicated person is sometimes insufficiently cared for by the doctor and nursing personnel; after his admission into the hospital he is not even given a brief orientational examination.

In the preliminary stages, the diagnosis of intoxication seems relatively easy; however, in the paralytic stage it is more difficult. A brain concussion, compression of the brain matter, hemorrhaging into the brain, and poisoning by other poisons can all be considered to be a case of drunkenness. We ourselves, in our institute, have done autopsies on several cases where a slight intoxication had hidden an illness and thus caused an oversight that eventually led to death. In other cases, the doctor called to the patient, besides administering first aid, did not order the necessary care and attention as was his duty; this caused the aspiration of the stomach contents and suffocation. The doctor did not do everything in his power to avert the pending danger of the patient's death. In such a case, the doctor did not self-consciously fulfil the duties of his profession.

During a celebration in a certain medical institution (!) one of the employees, after consuming a lot of alcohol, felt ill and vomited. The woman doctor called to him announced even without examining him that he was drunk and told him to go sleep it off. They put him on a couch in the waiting room (!) where he died, being left by himself. The cause of death was a brain hemorrhage; the alcohol content was 1.5 per thousand.

In another case an intoxicated man was brought to an emergency station. He was unable to stand on his feet on the street and caused a commotion. He was not even examined and was put on a couch by himself; by morning he was dead. During the autopsy it was found that he had a broken skull, he had hemorrhaged into his left-central ganglions, and the alcohol content in the blood was 1.4 promiles. A similar case of alcohol disguising an illness is listed by the Brno Traffic Chief himself: the driver of a wrecked car was taken to a doctor to have a blood test under considerable symptoms of intoxication. His head ached, his breath smelled of beer, he vomited, was unsure of his walk, and his reflexes were slowed down. After an examination, the Widmark reaction showed only 0.5 per thousand. The inconsistency was explained when it was found that the day after the accident the driver was admitted into the hospital on the diagnosis of a brain concussion.

If there is a case of head injury after the consumption of an

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alcoholic beverage, it is always necessary to find out whether it is really a case of intoxication or not. Vamosi recommends the quick and simple Schmidt orientation examination, according to which the change of color of an alkali solution of manganistane on a glass rod can roughly estimate both the degree and the amount of alcohol in the bloodstream. The negative results of the examination or a low level are especially important, for they force the doctor to seek the cause of why the victim seems to act like a drunk. It is always necessary to test behavior, clinical signs of injury, and poisoning with the Widmark examination.

One can understand how easy it is for alcohol to conceal symptoms of certain illnesses to the layman so that they do not even seek medical aid, in the conviction that it is only a passing result of consuming an alcoholic beverage.

During an afternoon celebration, a young woman consumed a certain amount of wine. When she returned home she felt ill and vomited, but did not call the doctor because circumstances explained to her that the uneasiness was due to the fact that she was not accustomed to alcohol. When the doctor finally came, he pronounced her dead. There was no hemorrhaging. The cause of death was a ruptured pregnant uterus and an extensive hemorrhaging into the stomach cavity.

In another case a woman treated for several years for sterility as a result of closure of both oviducts became ill after returning from a party and vomited. Since she had consumed some alcohol, both she and her husband thought that it would not be necessary to call the doctor and that the illness was the result of the alcohol. Again the cause of death was a ruptured pregnant uterus and hemorrhaging into the stomach cavity.

With youth, alcohol is considered to be the direct cause of criminality. The children either come directly from an alcoholic environment or at the time of their growing-up, after a bad upbringing, they enter the road to alcoholism by themselves and thus to the committing of criminal acts. Exner notes that the children of alcoholics from their childhood are exposed to the most varied traumas of their environment; this is by no means without influence on their slipping into crime. He even quotes K. Marx: "Every society has such criminals as it deserves," which confirms the importance of the social environment. Many parents (such is the case primarily in the capitalist states, where the problem of alcoholism is a big youth problem) permit the children to drink alcohol in their youth. For example, in Northern France they give alcohol to nursing babies at night to calm them down.

It is also quite significant that there is a higher mortality due to arterial and heart diseases in people consuming alcohol; recurring heart disease is especially unfavorably affected by alcohol. The effects of alcohol on the health of an individual can best be seen in the colonial lands that are virtually drowned by it: the alcohol drowns not only their national self-awareness but also undermines the health of nation. The export of alcohol from France in the French colonies rose, for example, in the last 15 years by more than 700%.

Small doses of alcohol cause small but long-lasting high blood

pressure; this depends on the centrally controlled arterial constriction in the vicinity of the splanchnic. At the same time there is a dilation of the brain, the skin blood vessels, and capillaries; the heart circumference is slightly increased. During a greater concentration of alcohol in the bloodstream, the work of the heart is definitely impaired.

The problem of the effect of alcohol (during acute poisoning) on an arterial system was studied in a Moscow School by O. B. Mazikova. Her work, composed of data on experimental animals and of the analysis of macroscopic and microscopic results of autopsies, can be summarized in the following manner: during acute poisoning, all the walls of the cells undergo a change; in all organs there is a venous oversupply of blood and even a stasis. In the capillaries, arteries, and venules, it is possible to observe, on the whole, a earyopycnosis of the endothelial nuclei; besides this, there is even a swelling of the basal member of the capillaries. In the small-caliber veins, there is often a swelling and fattening of the intima, and masses of albumen accumulate under the endothelium. In the central arterial system, as a result of albumen penetration, there is a compression and a swelling of the muscular veins, pyknosis of the nuclei, and often even the homogenizing of this system. During the adventive, there is a considerable pressure on the uterus, fibres, among which one can find a granular albumen mass. The walls of blood vessels of the middle and highest caliber are also affected. The changes in argyrophilic fibres show a lowered ability of impregnation, which can be seen especially in the smaller blood vessels and in the internal system of the larger veins. According to R. V. Mogilicky, the damaging changes in the same blood vessel wall and also the histo-chemical changes of the argyrophilic fibres show signs of a characteristic disturbance in the blood vessel wall in its ability to admit albumen.

The microscopic changes cited are connected with the material changes in the damaged matter and the holding back of metabolites, with acidity, hypoxia, and the swelling of the fibre koloids. They create the condition for an easier hemorrhaging in the vicinity of the blood vessel, especially the brain. Together with the blood vessels, damage is usually done to the parenchyma organs, as was shown with the brain, heart, lungs, liver, and kidneys. Such sectional discoveries confirm the findings made on experimental animals. The differences are only quantitative.

Alcohol often plays a decisive role also in making errors. It is usually a case of the willful poisoning of the victim, for alcohol is offered to influence the other person psychically. On the other hand, however, the moral and emotional dullness of the people who often indulge in alcoholic beverages leads them to exhibitionism, sadism, willful murder, and to the abuse of children.

Schauenstein cites the case of an eighteen-months old (!) girl who was abused by a drunk man. Hoffmann-Haberda have also investigated the case of a 21-month old girl who was also abused by a drunken man.

Rape in the state of acute drunkenness, the problem of whether alcohol had a pathological influence on the man, or the determination of an intolerance can be tested by the following experiment. For a

preliminary decision, the expert must first make a blood test and urine test on the suspect, examine the woman to determine whether there actually was rape with intercourse, and remove the excretion from the genitals in time.

Formerly, during the spread of venereal diseases, alcohol was the greatest factor in their spreading, because many persons have gotten this infection after an alcoholic coupling.

In our state and in the USSR, alcohol is designated as an evil that is absolutely contrary to the aims the socialist state has for its people (Strelcuk). That is why we fight it with all the means at our disposal, so that this comforter in insecurity and poverty, instigator of crimes, "liberator" from a yoke, and, at the same time, the dictator of man will be gradually pushed out of the minds of the people who are occupied with the tasks of building socialism.

Nevertheless, the situation has not gone so far as to encourage the capitalist excesses and be beyond repair. It is therefore necessary to continue to deal with cases combined with the use of alcoholic beverages. Thus, this report is to be not only a review of cases where alcohol is still influential but also a brief introduction to the general practitioner, who is the first person to come in contact with such cases. With him lies the burden of a just decision in individual cases, a dialectical comprehension of the situation, timely assembling of the materials needed for an investigation, as well as in all unclear cases, the preservation of all of the evidence in the original state until the case is taken over by a specialist from forensic medicine.

Summary:

Our society, which is building socialism, has an excessive consumption of alcoholic beverages. It continues to be an evil so far not overcome; it has a significant influence on the commitment of crime, accidents, and is a generally bad influence on the health of an individual. Therefore, we have presented a report from the forensic point of view about the areas where alcohol still plays an influential role in criminal activities. We wish to show the general practitioner a way of solving these problems, with which he often comes in contact.